



Center for Medicaid and State Operations/Survey and Certification Group

Ref: S&C-06-18

DATE: May 26, 2006

TO: State Survey Agency Directors
State Fire Authorities

FROM: Director
Survey and Certification Group

SUBJECT: **Life Safety Code** - Clarification of the Amount of Air Movement Allowed
Between Corridors and Resident Rooms and Plenum Waiver Requirements

Letter Summary

- Clarifies what an acceptable amount of incidental air movement is in assessing whether a corridor is a plenum.
- Addresses waiver criteria for facilities where a corridor is being used as a plenum in facility ventilation systems.

The purpose of this memorandum is to clarify and reiterate the Centers for Medicare & Medicaid Services' (CMS) policy and give additional survey guidance regarding the use of corridors as plenums in the ventilation systems of health care facilities. A plenum is a compartment or chamber to which one or more air ducts are connected and that forms part of a facility's air distribution system.

The National Fire Protection Association (NFPA) 90A, "Installation of Air Conditioning and Ventilating Systems" document, 1999 Edition prohibits egress (exit) corridors in health care occupancies from being used as a portion of the supply, return or exhaust air system serving adjoining areas (2-3.11.1, 1999 ed.). This prohibits the corridor from being used as a plenum. An example of when a corridor is being used as a plenum is when air is pumped into the resident rooms without provision for exhausting/removing the air from the room and the air flows into the corridor. This could accelerate the spread of smoke and toxic gases during a fire in a room. Another situation could exist where air flows from the corridor into the resident rooms. Many older health care facilities contain ventilation systems where the corridor is being used as a plenum as an alternative to upgrading the facility's air distribution system.

Some incidental movement of air between residents' rooms off an egress corridor and the corridor is permitted (2-3.11.1), and does not cause the corridor to be considered a plenum. This incidental air movement can be caused by such things as bathroom fan exhaust systems when the bathroom is connected to the resident's room.

Recently at meeting with the chairman and a few members of the NFPA 90A Technical Committee, it was determined that air exhausted from the bathroom and drawn from the room in general could be made up in whole or in part from infiltration around and under the corridor room door. It was explained by the representatives from the Technical Committee that this quantity of air movement would not cause the corridor to be considered a plenum.

In cases where it is determined that the corridor is being used as a plenum and the deficiency is cited at tag K-067, a waiver may be granted. The following criteria should be used to document "no adverse effect on health and safety" when considering the waiver request.

- **Fully Sprinklered Building:** If the building is protected throughout by a complete supervised automatic sprinkler system in accordance with section 9-7, NFPA 101 2000 edition, a waiver may be recommended.
- **Partially Sprinklered or Unsprinklered Building:** If the zone with the corridor plenum is protected by a complete corridor smoke detection system, and there is provision for automatic fan shut down upon detection of smoke and activation of the building fire alarm system, a waiver may be recommended. If the existing fire alarm control panel(s) does not have sufficient capacity to handle the additional corridor detectors, new control panels may be required.

We hope this information is useful in clarifying this issue. If you have further questions, regarding this matter, please contact James Merrill at James.Merrill@cms.hhs.gov.

Effective Date: The information contained in this memorandum is current policy and is in effect for all nursing home facilities. The State agency should disseminate this information within 30 days of the date of this memorandum.

Training: This clarification should be shared with all survey and certification staff, fire authorities, surveyors, their managers, and the State/RO training coordinator.

/s/
Thomas E. Hamilton

cc: Survey and Certification Regional Office Management (G-5)